March 2009

# Types 67C and 67CR Installation Sheet

## Introduction

This Installation Sheet covers the installation and startup of the Types 67C and 67CR instrument supply regulators. If maintenance is required, refer to the 67C Series Instruction Manual, form 5469. Contact your local Sales Office to receive a copy of the instruction manual.

# **Specifications**

• Maximum Inlet Pressure: 250 psig (17,2 bar)

Maximum Emergency Outlet Pressure:
50 psi (3,5 bar) over outlet pressure setting

Outlet Pressure Ranges:

0 to 20 psig (0 to 1,4 bar)

0 to 35 psig (0 to 2,4 bar)

0 to 60 psig (0 to 4,1 bar)

0 to 125 psig (0 to 8,6 bar)

• Temperature Capabilities with Nitrile (NBR):

Standard Bolting: -20° to 180°F

(-29° to 82°C)

Stainless Steel Bolting: -40° to 180°F

(-40° to 82°C)

## Installation



Personal injury, property damage, equipment damage, or leakage due to escaping gas or bursting of pressure-containing parts may result if this regulator is overpressured or is installed where service conditions could exceed the limits given in the specifications, or where conditions exceed any ratings of the adjacent

piping or piping connections. To avoid such injury or damage, provide pressure-relieving or pressure-limiting devices (as required by the appropriate code, regulation, or standard) to prevent service conditions from exceeding those limits.

The internal relief valve in the Type 67CR regulator does not provide full overpressure protection. The internal relief valve is designed for minor seat leakage only. If maximum inlet pressure to the Type 67CR exceeds the maximum pressure ratings of the downstream equipment or exceeds the maximum allowable outlet pressure of the Type 67CR, additional overpressure protection is required.

- Regulator operation within ratings does not preclude the possibility of physical damage from external sources or debris in the lines. Regulators should be inspected for damage periodically and after an overpressure condition.
- Only personnel qualified through training and experience should install, operate, and maintain a regulator. Make sure there is no damage to or foreign material in the regulator and all tubing/ piping is free of debris.
- Install the regulator so that flow is from the IN to the OUT connection as marked on the regulator body.



A regulator may vent some gas to the atmosphere. In hazardous or flammable gas service, vented gas may accumulate and cause personal injury, death, or property damage due to fire or





explosion. Vent a regulator in hazardous gas service to a remote, safe location away from air intakes or any hazardous area. The vent line or stack opening must be protected against condensation or clogging.

- 4. A clogged spring case vent hole may cause the regulator to function improperly. To keep this vent hole from being plugged (and to keep the spring case from collecting moisture, corrosive chemicals, or other foreign material) orient the vent to the lowest possible point on the spring case or otherwise protect it. Inspect the vent hole regularly to make sure it is not plugged. Spring case vent hole orientation may be changed by rotating the spring case with respect to the body. A 1/4 NPT spring case vent may be remotely vented by installing tubing or piping into the vent.
- For regulator shutdown, install upstream block and vent valves and downstream block and vent valves (if required), or provide some other suitable means of properly venting the regulator inlet and outlet pressures.
- Apply a good grade of pipe compound to the male pipe threads before making connections, making sure not to get the pipe compound inside the regulator.
- Install tubing fitting or piping into the 1/4 NPT inlet connection on the body (key 1) and into the 1/4 NPT body outlet connection.
- The second 1/4 NPT outlet can be used for a gauge or other use. If not used, it must be plugged.

# Startup and Adjustment

 With proper installation completed and downstream equipment properly adjusted, slowly open the upstream and downstream shutoff valve (when used) while using pressure gauges to monitor pressure.

# **WARNING**

To avoid personal injury, property damage, or equipment damage caused by bursting of pressure containing parts or explosion of accumulated gas, never adjust the control spring to produce an outlet pressure higher than the upper limit of the outlet pressure range for that particular spring. If the desired outlet pressure is not within the range of the control spring, install a spring of the proper range.

2. If outlet pressure adjustment is necessary, monitor outlet pressure with a gauge during the adjustment procedure. The regulator is adjusted by loosening the locknut (key 19), if used, and turning the adjusting screw or handwheel (key 18) clockwise to increase or counterclockwise to decrease the outlet pressure setting. Tighten the locknut to maintain the adjustment position.

#### **Parts List**

Key	Description
1	Body
3	Flange Screw
4(1)	O-Ring
7	Spring Case
10(1, 2)	Valve Cartridge
11(1, 2)	Valve Plug
12(1, 2)	Valve Spring
13(1, 2)	Valve Retainer
14(1, 2)	O-Ring
15(1, 2)	Relief Valve Soft Seat
16(1)	Diaphragm Assembly
17	Spring
18	Adjusting Screw
19	Locknut
20	Upper Spring Seat
39	Bottom Plate

<sup>1.</sup> Recommended Spare Part

<sup>2.</sup> Valve cartridge assembly includes keys 10, 11, 12, 13, 14, and 15.

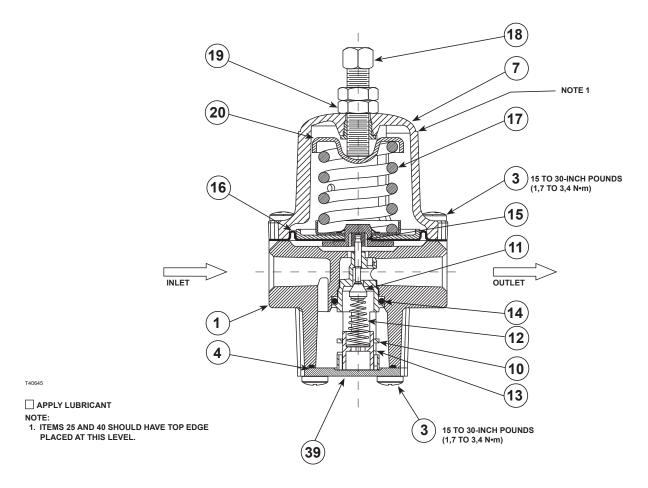


Figure 1. 67C Series Assembly

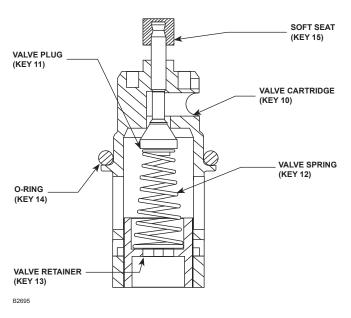


Figure 2. Valve Cartridge Assembly

## Industrial Regulators

#### **Emerson Process Management** Regulator Technologies, Inc.

USA - Headquarters McKinney, Texas 75069-1872 USA Tel: 1-800-558-5853 Outside U.S. 1-972-548-3574

Asia-Pacific Shanghai, China 201206 Tel: +86 21 2892 9000

Europe Bologna, Italy 40013 Tel: +39 051 4190611 Middle East and Africa

Dubai, United Arab Emirates

Tel: +971 4811 8100

#### **Natural Gas Technologies**

#### **Emerson Process Management** Regulator Technologies, Inc.

USA - Headquarters McKinney, Texas 75069-1872 USA Tel: 1-800-558-5853 Outside U.S. 1-972-548-3574

Asia-Pacific

Singapore, Singapore 128461

Tel: +65 6777 8211

Europe Bologna, Italy 40013 Tel: +39 051 4190611 Gallardon, France 28320

Tel: +33 (0)2 37 33 47 00

## **TESCOM**

#### **Emerson Process Management Tescom Corporation**

USA - Headquarters Elk River, Minnesota 55330-2445 USA

Tel: 1-763-241-3238

Europe Selmsdorf, Germany 23923 Tel: +49 (0) 38823 31 0

For further information visit www.emersonprocess.com/regulators

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